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Abstract

An optical paper sorting system uses diffuse reflectance to identify a sheet of paper, conveyed on a conveyor, as either white or groundwood grade. A light source illuminates a sheet of paper and an optical collection system collects and filters the light diffusely reflected from the sheet of paper. The reflected light strikes a detector which produces a photoelectric current proportional to the intensity of the filtered light in a specific region in the electromagnetic spectrum, preferably ultraviolet. The signal from the detector may be digitized and processed by a computer which classifies the sheet as either white or groundwood, and activates an ejection device to produce an air blast for diverting whichever grade is selected for ejection.

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